CLAIMS

What is claimed is:

1. The use of a cartilage extract having an anti-tumor activity in a combined anti-tumor therapy, to increase anti-tumor activity of an anti-neoplastic in a patient who is administered an anti-tumor amount of said anti-neoplastic and to protect said patient against an increase of toxic side effects inherent to the administration of said antineoplastic.

2. The use as defined in claim 1, which comprises administering to said patient a composition of said anti-neoprastic and said cartilage extract.

3. The use as defined in claim 1, which comprises concurrently administering to said patient said anti-neoplastic and said cartilage extract.

4. The use as defined in any one of claims 1 to 3, wherein cartilage extract is a shark cartilage extract obtained by a process comprising the steps of: homogenizing and extracting shark cartilage until a mixture of cartilage particles of an average size of about 500 μm and a crude liquid extract are obtained, separating said particles from said crude liquid extract, and fractionating said crude liquid extract so as to recover molecules having a molecular weight lower than about 500 Kda.

5. The use as defined in any one of claims 1 to 4, wherein said anti-tumor amount of said anti-neoplastic is a sub-optimal dose thereof, and said amount of cartilage extract adds anti-tumor efficacy to said anti-neoplastic with no increase of toxic side effects inherent to the administration of higher dose of said anti-neoplastic which would have an anti-tumor efficacy equivalent to the combined anti-tumor therapy.

6. The use as defined in any one of claims 1 to 5, wherein said amount of cartilage extract adds anti-tumor efficacy with a decrease of said toxic side effects.

7. The use as defined in any one of claims 1 to 4, wherein said anti-tumor amount of said anti-neoplastics is an optimal dose thereof, and said amount of cartilage extract adds anti-tumor efficacy to said anti-neoplastic with no increase of toxic side effects inherent to an administration of said anti-neoplastic.

8. The use as defined in any one claims 1 to 4, and 7, wherein said amount of cartilage extract adds anti-tumor efficacy with a decrease of said toxic side effects.

9. The use as defined in any one of claims 1 to 8, wherein said anti-neoplastic is selected from the group consisting of busulfan, thiotepa, chlorambucil, cyclophosphamide, estramustine sodium phosphate, ifosfamide, mechioretharnine hydrochloride, melphalan, carmustine, lomustine, streptozocin, carboplatin, cisplatin, methotrexate sodium, cladribine, mercaptopurine, thioguanine, cytarabine, fluorouracil, hydroxyurea, daunorubicin, doxorubicin hydrochloride, epirubicin hydrochloride, idarubicin hydrochloride, dactinomycin, bleomycin sulfate, mitomycin, mitotane, mitoxantrone hydrochloride, etoposide, teniposide, docetaxel, paclitaxel, vinbiastine sulfate, vincristine sulfate, vindesine sulfate, vinorelbine tartrate, altretamine, amsacrine, l-asparaginase, dacarbazine, fludarabine phosphate, porfimer sodium, procarbazine hydrochloride, tretinoin (all-trans retinoic acid), marimastat, suramin, TNP 470, thalidomide and radiotherapy.

10. The use as defined in claim 9, wherein said anti-neoplastic is cisplatin.

11. An anti-tumor composition comprising an anti-tumor amount of an anti-neoplastic and an anti-tumor amount of a cartilage extract, in a suitable pharmaceutically acceptable carrier.

12. An anti-tumor treatment kit which comprises a first component comprising of an anti-neoplastic in an anti-tumor dosage form and a second component comprising a cartilage extract in an anti-tumor dosage form.

13. An anti-tumor composition or kit as defined in claim 11 or 12, wherein said cartilage extract is obtained by a process comprising the steps of: homogenizing and extracting shark cartilage until a mixture of cartilage particles of an average size of about 500 μm and a crude liquid extract are obtained, separating said particles from said crude liquid extract, and fractionating said crude liquid extract so as to recover molecules having a molecular weight lower than about 500 KDa.

14. An anti-tumor composition or kit as defined in any one of claims 11 to 13, wherein said anti-neoplastic is selected from the group consisting of busulfan, thiotepa, chlorambucil, cyclophosphamide, estramustine sodium phosphate, ifosfamide, mechiorethamine hydrochloride, melpha Ian, carmustine, lomustine, streptozocin, carboplatin, cisplatin, methotrexate sodium, cladribine, mercaptopurine, thioguanine, cytarabine, fluorouracil, hydroxyurea, daunorubicin, doxorubicin hydrochloride, epirubicin hydrochloride, idarubicin hydrochloride, dactinomycin, bleomycin sulfate, mitomycin, mitotane, mitoxantrone hydrochloride, etoposide, teniposide, docetaxel, paclitaxel, vinbiastine sulfate, vincristine sulfate, vindesine sulfate, vinorelbine tartrate, altretamine, amsacrine, l-asparaginase, dacarbazine, fludarabine phosphate, porfimer sodium, procarbazine hydrochloride, tretinoin (all-trans retinoic acid), marimastat, suramin, TNP 470, thalidomide and radiotherapy.

15. An anti-tumor composition or kit as defined in claim 14, wherein said anti-neoplastic is cisplatin.

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